McKittrick Oil Field

- Discovered in 1896
- 5 miles in length and 2.5 miles in width
- 3.3 million barrels oil/year, 9,000 barrels oil per day
- Since 1896 the field has produced over 310 million barrels of oil
- Estimated reserves remaining vary between 13 billion barrels
- 977 producing and idle wells, Over 5,700 drilled
- Wells produce on average 7 barrels a day
- Peak oil production in 1966 – 11.4 million barrels
- Chevron Corp. and Aera Energy LLC are the main operators
- Getty Oil studied methods in the 1980s to mine the shallow diatomite by excavating a pit 3 miles x 1 mile by 600 feet

Geology

- 13 oil pools – 8 in the northeast area and 5 in the main area.
- Pleistocene (Tulare Sand), Pliocene (San Joaquin Formation), Miocene (Antelope Shale of Monterey Formation, Diatomite and Carneros Sandstone) and Oligocene (Oceanic sand) Reservoirs
- Block of Monterey shale slipped off during Pleistocene and formed a cap over oil bearing formation.
- Numerous tar seeps along the McKittrick Thrust Fault
- Depth of oil production – 500 to 4,700 feet
- Average thickness of oil productive intervals – 300 to 1,500 feet
- Porosity: 25 to 35% – Antelope shale is mostly fractured
- Estimated permeability of 10 to 2,500 (mD) – Varies widely by area and depth
- Average oil gravity – 12 API

Water

- 82,000 bbl/day, 30 million bbls/year
- Salinity – 1,500 – 10,00 ppm
- Total dissolved solids – 2,000 to 13,000 ppm
- Base of fresh water – None
- 33 active and idle water disposal wells